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A
TREATISE ON SUCCESSFUL
**FILBERT &
WALNUT
CULTURE**
IN THE
PACIFIC NORTHWEST

* * * *

**HOW TO PLANT THEM
HOW TO GROW THEM**

* * * *

Our Trees Grow. We Sell Direct
to the Planter. Save Mon-
ey by Mailing Your
Order Now

* * * *

CARLTON NURSERY CO.
“Since 1890”
CARLTON, OREGON

Plant Filberts For Profit

The soil and climatic conditions of that portion of Oregon and Washington lying west of the Cascade Range, have proven to be exceedingly well adapted to the culture of filberts. After many unsuccessful attempts at growing them in other sections of the United States, the planting at this writing is confined chiefly to the area stated above. Groves in this area planted from 15 to 25 years ago have proven to be fine commercial investments for owners, who have received as much as 2000 to 3000 pounds of nuts per acre. Young groves at 5 years and upward are producing annual yields which pay profits far in excess of ordinary farm crops.

The consumption of filberts in the U. S. is increasing rapidly. The Year Book from the Dept. of Agriculture for 1927 shows an importation amounting to more than 25,000,000 lbs. The crop for Oregon and the Northwest for the same period was less than 80 tons, showing a good field for expansion and no doubt will become one of the Northwest's great horticultural crops. Marketing up to the present has been confined to this coast, but with yearly increases in production it will be necessary to reach into our large metropolitan centers of the East and Middle West. The quality of our filbert is far superior to the foreign filbert imported chiefly from Sicily, England, France and Italy.

With our fast growing organized co-operative marketing agencies, it will be possible to put our filberts on the Eastern market for the holiday season, far ahead of our European competitors, who are forced to carry over their crop for a season, which becomes stale and of poor quality by the time it reaches our market. The bulk of our supply is imported at this time. Filberts are being consumed by many large manufacturing industries, as well as being con-

sumed daily by the ever increasing appetite of the nut consuming American.

Filberts are a very healthy nut, rich in flavor, easy to crack, clean, readily digested, and high in food value.

ADAPTABILITY: Every farmer, orchardist, berrygrower, poultryman and small home owner in the Northwest should have some filberts planted at least for his own use. The poultryman will find the filbert a very convenient and non-perishable crop to have growing in his poultry yard. The farmer having land suited to their culture can well set aside a small acreage for their growing. They will prove to be his best investment. Coming into production at an early age and requiring only limited capital to bring on to a point where they are productive and paying good dividends at four and five years and doubling that production rapidly, they can well be considered a good investment for the thrifty laborer, owning land, who is seeking a safe investment to take care of his needs in later years. Bankers, professional men and merchants find them a safe investment. Berry growers often use the filbert as a follow-up crop when production slows down with their berry plants. Planting them at the same time as the berries, they find them in good production when the berries run out. This works as a double investment for the grower.

VARIETIES TO PLANT: After several hundred years of cultivation there are probably six or seven varieties possessing commercial value. The chief one of these is the Barcelona, which has been pronounced by our leading horticulturists, as being the best nut for productivity and commercial value. Single trees of the Barcelona variety have produced more than 100 pounds by accurate and authentic weight in their twentieth year.

BARCELONA: A large, round nut, fully self husking, rich in flavor, kernel uniform in size,

clean pelicle and very prolific when pollenzized with the DuChilly, Daviana and White Aveline. Tree a strong grower.

DU CHILLY: A long nut, only partially self husking, finest of quality and always demanding a premium of several cents per pound over the Barcelona. A heavy bearer when pollenzized with the Clackamas or Daviana. Medium grower.

DAVIANA: A striped nut, longer than the Barcelona but shorter than the Du Chilly. A good pollenzizer for the Barcelona and Du Chilly. Tree a strong grower.

CLACKAMAS: Similar in shape to the Barcelona, but rougher, shy bearer but a proven pollenzizer for the Du Chilly. Heaviest of all pollenzizers. A very strong grower.

WHITE AVELINE: A small nut, long in shape, fine quality, but must be husked by hand. Used as a pollenzizer for the Barcelona. Tree a weak grower.

BRIX NUT: A large round nut of light color, sometimes planted instead of the Barcelona. A strong grower and good yielder. Should be pollenzized by the Giant de Halle.

GIANT DE HALLE: A large round nut. A good pollenzizer for the Brix Nut.

PLANTING GUIDE: After reading the foregoing statements as to varieties we would like to clarify our readers' minds as to what is best suited as a combination for heavy production. Too often have horticulturists left their students in a quandry as to what is best to plant. After years of observation and experience in this line we feel justified in stating that a good commercial orchard planted with about 85 per cent Barcelona, 10 per cent Du Chilly, and 5 per cent in Daviana and Clackamas will prove very successful. However, opinions may vary a great

deal on the matter of pollenization, but experience has shown us that it is better not to depend on any particular pollenizer.

Peculiar blooming habits of the filbert prove that a tested pollenizer will act favorably one year and fail the next. However, by using the plan suggested, a good yield of good commercial nuts may be expected. Trees are usually planted 20 by 20 feet, requiring 108 trees to the acre. On heavy, rich, river bottom soils it would be practical to set them 25 by 25 feet, requiring 69 to the acre.

SOILS: The filbert will, no doubt, adapt itself to a greater variety of soils than most trees grown for commercial production. They, however, respond to good soil and extra cover cropping with vetch, rye and good barnyard fertilizers. The ordinary heavy valley loams, rolling shot soils, and sandy river bottoms will produce abundant crops in the Northwest, but will vary in production with the fertility of the soil. Sour, heavy soil should be avoided.

PRODUCTION: Filberts often set on trees planted the first and second year, proving them to be very eager producers. Before entering into this subject we wish to state that soil fertility, cultivation and pruning will govern production to a large extent. Six year trees often produce 5 to 8 pounds of nuts. Seven year trees in our own grove have produced 22 lbs., but averaged around 14 pounds to the tree per acre. Yields reported from various growers in the Willamette valley show that 9 to 11 year trees vary from 15 to 35 pounds per tree. The scion wood for our grafted filbert stock is taken from trees with a record of 45 to 60 pounds in their 12th year. Mature trees have borne more than 100 pounds in Oregon. At prices far below the average now received per pound by Oregon filbert growers, we consider that they would still be a safe and profitable investment. More than 4300 pounds were taken from an

acre and a quarter at Linneman Junction, near Portland. Cost of production is very low compared with many horticultural crops. No expensive machinery, sprayers, driers, trays, or ladders are needed in the production of filberts. Rain nor frost have any effect on this winter blooming crop. They have withstood very severe weather at blooming time and bore heavy crops. Filberts fall to the ground early in the fall and are picked up and stored in boxes, where good air circulation can take place. We suggest that trees be kept in tree form, as this will be a great aid in cultivation.

HOW PROPAGATED: We offer two distinct types of nursery grown filbert trees, one being the grafted suckerless tree on the Turkish root stock; the other, the widely planted type of nursery grown transplanted stock on its own root. Both are successful in their respective ways. We shall deal first with the transplanted nursery grown stock. We use both rooted suckers and tip layers for our lining out stock, taken from the best of groves, including our own, which have proven to be record producers of high quality filberts. The roots of this lining out stock are pruned heavily before planting in the nursery row, to eliminate as far as possible all the old root, which causes undue sprouting at the base of the tree for many years to follow after setting in orchard form. Our trees are all grown on rich, new soil and produce the finest of root systems. They are sold according to size and root system. Our late price list will denote the cost per tree. This stock will produce a fine orchard.

GRAFTED SUCKERLESS FILBERT: We are the originators of this method of propagation in nursery grown filberts. After finding but one fault with the Filbert grove on its own root (the continual suckering at the base of the tree), we decided to look deeply into the possibility of eliminating this fault and the con-

sequent costly annual expense. Taking the matter up with the Department of Agriculture we found the Turkish filbert to be our salvation.

After receiving some of the nuts and small trees from the government we set out to find a source of supply for this type of stock. We found them in our own state, being imported 12 to 15 years ago. Observation of the trees over a period of eight years has shown them to be entirely free from suckers and to be of true tree form. They are extremely rapid growers. We find them to be a boon to the grower desiring a suckerless tree of rapid growth and high productivity. These trees are sold in one year stock on two year roots. An orchard planted to this grafted suckerless filbert stock will be a pleasure to grow as well as being profitable at an early age. Further information will be sent on request.

We have in the past 39 years furnished thousands of planters with large and small commercial plantings of both fruit and nut trees. Our years of experience in soil selection for the growing of strong, hardy trees, bud selection from trees producing quality and quantity, and the selection of root stocks adapted to various growing conditions, is your insurance of success in tree planting. Our packing methods will insure safe delivery to any part of the country. It takes several years for trees to come into bearing and to prove their genuiness. With our long reputation for integrity, we accept that responsibility. We grow a full line of reliable nursery stock. Submit your list for special quotations.

CARLTON NURSERY CO.,

"Since 1890,"

CARLTON, OREGON.

Plant Grafted Vrooman Franquette Walnuts

The culture of walnuts throughout the Pacific Northwest has reached such proportions that it bids fair to become one of the richest horticultural crops in this district. Having weathered the adversity of early experiments, in the way of planting, type of soils, varieties, and ways of marketing, we feel safe in stating that the commercial planting of grafted walnuts thruout Oregon and Washington may well continue with safety, bearing in mind the essentials needed or used in the laying of a successful business enterprise of any kind.

The mere fact that the consumption of walnuts thruout the U. S. is increasing annually and that we are consuming annually more than a pound to the person, should relieve the most skeptical persons of any thought of over-production for many years to come. About 60 per cent of all the walnuts now consumed in the U. S. are imported annually from France, China and Italy. The balance is being produced on the Pacific slope.

ADAPTABILITY: Oregon and Washington have proven to be particularly suited to the production of high quality Grafted Franquette Walnuts. Favorable soil conditions in the Northwest, quality of nuts secured, low priced soils available for the planting of walnuts, and low taxation are but a few of the factors which will eventually make the Northwest a leader in nut production. Co-operative marketing, proper distribution, and general advertising have already placed the Grafted Franquette foremost in its field.

In the following paragraphs, we shall make an effort to establish the proper essentials for the successful planting and growing of a commercial walnut grove.

VARIETY: After many years of experience in handling and growing grafted walnuts, we have discarded practically all varieties excepting the Vrooman Franquette for commercial plantings. This variety has proven to be the best yielder, highest quality, and most hardy tree for the Northwest, blooming late enough to insure regular crops of finely filled nuts. This combination cannot be found in many sorts.

PROPER SOIL: What is true of other commercial fruit trees of the Northwest is also true of the walnut. They do best in well-drained soil, clay loam and mellow soil of the Valley prairie, upland hills, and lower land, where the soil has good texture and good drainage. The most important thing to keep in view is, to avoid soggy soil and all white land.

DISTANCE PLANTED: This is a matter of choice, left to the planter, as many successful walnut planters vary on this. It is a matter to be decided by each individual planter. Plantings are being made from 40 to 60 feet apart, but probably the best and most used distance, where walnuts are set alone and without fillers, is 40x40 feet.

FILLERS USED: When planting a walnut orchard, owing to the fact that they are large growers, and require plenty of room when in full bearing, the planter must arrange his distance so that when walnuts are large they will have sufficient room to take care of themselves; and this means the walnuts require a greater distance than any other fruit trees.

To make the land work to full capacity, where grafted walnuts are planted a long distance apart, we suggest the use of some good filler, and where location, soil, etc., are suited, the following fruit and nut trees are often used with success, bringing good dividends to the grower from the 3rd to the 5th year. Peaches, pears, filberts and Montmorency Large sour

cherries have proven in the past to be very profitable where interset with grafted walnuts. Reference to our general catalogue will show the number of fillers required to interset at various distances..

In the meantime, while the walnuts are coming into full bearing, and do not require all the land, the filler will enable the planter to get a number of good paying crops before the walnuts require the room of the fillers. At that time, when walnuts require more room, the filler trees can be removed in part or all, and the planter has realized good money by doing this.

CROPS GROWN BETWEEN ROWS: To bring in a revenue, while the orchard is young and a non-producer, intercropping can be practised with walnuts, where planted alone, and as well where planted with any other crop. Any cultivated crop can be grown for four years at least ,and in some cases longer, such as potatoes, berries, beans, corn, strawberries, etc. In using a cultivated crop, your orchard is properly worked, which is very necessary to trees, and at the same time it is paying to you, and you are not at an expense, such as clean cultivation would entail, where no crops are grown. At the time the orchard begins to bear, or has produced a good growth, all intercropping should be stopped, and clean cultivation given to the orchard.

CULTIVATION: Walnuts should, the same as all other fruit trees, receive the necessary cultivation; either clean cultivation should be given, or intercropping practised. Uncultivated crops, such as grain, hay, etc., can be grown, by leaving a strip of several feet along each side of tree rows, and the same to be kept cultivated. We, however, do not recommend this; they will do well, yet not so well as where the entire ground is worked; for in this country, it is very necessary that we conserve all moisture possible for the benefit of the orchard.

For the young planted grafted walnuts we

suggest thorough hoeing be given them at least three times each season. It is well to do this at intervals of about three weeks, starting in the middle of May and carrying on into summer. This will insure the young trees of securing enough moisture to make rapid growth. A young tree properly planted and cultivated, will, at the end of three years, grow to a height of 10 to 12 feet and will carry a nice top of 5 to 6 well formed limbs.

HOW TO PLANT: In setting walnuts, the hole should be dug roomy enough to receive roots, without crowding, and should be set about two inches deeper than what they stood in the nursery row. Top soil should be put in first and the dirt gently firmed as it is being put in (do not ram nor pound dirt in), and see that roots are imbedded in a natural way, and not crowded. We contend that a hole made good and roomy, enough so to receive the tree in good shape without crowding, is better, for we believe that, by having the hole right in size, about 3 by 3 feet, trees make a better start the first year, and are not so liable to dry out. In pruning the roots when setting, they should be given each one a clean cut at ends with a sharp knife; this also applies to tap root. When setting walnuts in the spring, it is well to turn a bucket of water around the tree, after being set; this will settle the soil around the roots. There is nothing technical about setting trees; only necessary to use good judgment.

TIME OF PLANTING: Walnuts can be set, beginning in the fall and throughout the winter and on up to spring, this being true also of all trees. Winter setting is preferred, for the reason that in setting in the winter, they get started off with a root system as spring opens up, and in setting in the spring they have to make this root system, before they can start; and if it should happen that we had a dry season, the winter planting will not suffer, as those set in the late spring.

SOURCE OF SCION WOOD: Our long experience as nurserymen and orchardists have proven to us that the selection of scion wood for propagating is the most essential factor in the securing of quality and high productivity. The first grafted walnut trees grown and sold in the Northwest prove that there was a big field for selection, as the most of them were of very poor quality. The scion wood for our nursery stock is taken from the best of Grafted Vrooman Franquette walnut trees, having records in production and quality. This is the best insurance for your future walnut grove.

ROOT STOCK USED: We consider, after many years of experience in growing grafted walnuts, that the California Black Walnut is far superior to any other type of root system. They make excellent unions, are strong and hardy growers, and will produce a commercial tree at 8 years far superior in size to those that have been grafted on the Eastern or American Black Walnut root. This is a proven fact and can be pointed out to those interested. The American Black is being used by some growers but is found to produce a constriction at the union, which is considered a serious feature by propagators. Our stock is grafted high enough from the ground to safeguard against the loss of trees by mushroom rot, which often occurs where trees are improperly grafted close to the ground. We suggest the use of tree protectors the first and second year on all young trees.

HOW WALNUTS ARE PRUNED: There is a difference of opinion with many successful walnut growers as to methods of pruning, and this is mostly to be worked out by each individual planter.

The most used and popular style of pruning, up to recently, has been to start a high head, around six feet and higher. Another system of pruning is to cut the tree, when set out, around and under two feet high, but in cutting low, be

sure that you have a sufficient number of good buds left to start trees off. After a tree is cut back, the several buds which you have left will start out; let them grow until they are far enough along for you to determine which one will be the best and strongest; then take off all of them, leaving this selected one, to grow up and make your tree. In the meantime set a stake by the tree to train this new branch to, and the second year train center lead up to 7 or 8 feet. Let branches form at this point.

The height to start walnut head, and system of forming, should be left up to the planter, he to make his selection from the several systems, for it is up to him to make his own orchard, and each one has his own way of getting at the same results.

We have had years of experience in trimming and handling fruit trees, and will say that the first few years' life of all trees is the most critical time of their life; and this is the most important time to get your trees started off, and to get them started off right; and to force quick and early growth, it is necessary to do it by cultivating and pruning. The necessary amount of trimming which should be done to trees acts as a stimulant, and is a great factor in the early life of the tree. Trimming and pruning of walnuts is confined chiefly to the first period of their growth. After a well formed head is secured nature takes care of the tree to a large extent.

WALNUT YIELDS: Soil conditions, air and surface drainage, cultivation and cover cropping with proper green forage, will have a great deal of control over production in many groves. The Grafted Vrooman Franquette is an early bearer of fine walnuts, often setting nuts the second and third year after being planted. The following yields are taken from our own groves and reliable walnut statistics. At eight years a yield of 30 lbs. and over is not uncommon in the Franquette, making them a commercial as-

set from this period on. Nine and ten year trees often produce 40 to 80 lbs. Ten to 12 year orchards are ranging from 80 to 100 lbs. We have records to show that in parts of California single trees have produced from 500 to 700 lbs. A very conservative estimate for trees ranging from 12 to 14 years old would be around 2000 lbs. per acre where planted 40 by 40 feet each way. Walnuts are capable of bringing the grower several hundred dollars per acre, after attaining fair size.

HARVESTING WALNUTS: Grafted walnuts usually ripen in the Northwest in the fore part of October. The first fall rains helping to break the hull, the nut drops to the ground. They are then picked up and taken in and washed. The washing is now done by perfected machines for this particular purpose. There are several reliable machines offered at this time. After the washing process, they are dried in dryers, with a heat of about 90 degrees. This temperature will insure finely flavored walnuts. From 36 to 60 hours are required, according to the type of dryer used. Many small plantings are being handled with hand washing troughs and improvised dryers, which turn out fine nuts. Those who are near commercial walnut dryers will find them more economical to patronize.

WHO ARE PLANTING: All classes of people are planting walnuts—farmers, land owners, orchardists, professional and business men. Business men say they are planting walnuts, because nature will produce them an income, regardless of the ups and downs and fluctuations of business activities, such as business lines are subject to, thus eliminating the business worry which goes with business.

A STAPLE CROP: Walnuts are a staple commodity, non-perishable and every indication leads one to believe that, with our ever increasing population the market and demand will in-

crease heavily. The fact that the walnut crop of the Pacific Coast is one of our richest horticultural crops proves it to be a staple industry.

CONSUMPTION OF WALNUTS: The Year Book of Agriculture issued by the U. S. Government for the year 1927 shows we imported from foreign countries the following amounts of walnuts: shelled walnuts, illuding to the meats alone, 20,979,000 lbs.; unshelled walnuts, 25,706,000 lbs. This means an importation equalling 65,000,000 pounds of unshelled walnuts for that year. Previous years show similar importations. New methods of using and consuming the walnut throughout the entire year have caused tremendous consumption of this commodity. It is reasonable to presume that as this Coast becomes capable of producing larger quantities of walnuts that we will secure proper legislation on protective tariffs, which will give us protection against our foreign competitors. Prices now received for our grafted walnuts show heavy advances over the foreign nut.

CONCLUSION: Looking back over the steady progress made in the past years in nut production in the Northwest and the constant demand for this staple product, it is safe to state that an acreage planted to good Grafted Vrooman Franquette Walnuts will become a real asset for those seeking a safe investment. Nut growing is confined to a very small area of the U. S. and the prices received for them have shown a steady increase over a long period of years. An orchard planted with our Grafted Vrooman Franquette trees will be a good source of revenue for you. Submit your list for quotations on large plantings.

CARLTON NURSERY CO.,

"Since 1890,"

CARLTON, OREGON.

Chestnut Growing In The Pacific Northwest

Present indications show encouraging possibilities for Grafted Chestnut groves on the Pacific slope, particularly in the Northwest. Chestnut growing in the East is no longer a profitable industry. Disease and weevil have caused heavy losses to their groves. The West has never suffered from these adversities.

Bearing groves in Oregon and California show very heavy yields at exceedingly early age. Trees of the grafted type are paying good at seven years and will under favorable conditions produce more than 125 pounds to the tree at 10 years. Yields of 2000 to 4000 pounds per acre may be expected from trees 12 to 15 years of age. The fact that we are capable of producing fine chestnuts that are sold in car lots at 15 to 20 cents per lb. and that we are importing many millions of pounds of chestnuts from foreign countries, should interest the progressive horticulturist. The future for chestnuts will no doubt be good. The cost of producing and harvesting this crop is nominal. They require no special spraying, pruning or thinning. The nut falls free from the burr.

Chestnuts will adapt themselves to ordinary orchard soils with proper drainage. For large, rich, brown, glossy nuts far superior to those of our foreign competitor, we are receiving a premium of 5 to 8 cents per lb. Chestnuts produced in the Northwest show beautiful color, well filled burrs, large size and heavy tonnage.

The following sorts of grafted chestnut trees are proven sorts for this Coast and a variety should be planted to insure good cross pollination. This stock will be income producers at seven years.

PARRY: A large nut, good color, early bearer and fine quality. A strong grower. Japan hybrid.

FULLER: Medium size, sweet flavor and fine quality. An excellent keeper and drops free from the burr.

PROGRESS: Medium size, exceedingly fine flavor. Tree a strong grower. Drops free.

LARGE AMERICAN SWEET: An extremely large nut, highly colored, ripens early and demands best prices. Drops free from the burr.

QUERCY: A large nut of a very glossy color. A prolific bearer and quality is good.

Chestnuts will respond to the same cultivation, fertility, drainage and cover cropping as a walnut grove. Chestnuts do not blossom until summer time and are sure croppers.

The field for expansion in the chestnut industry is great. Markets are good, and a grove of chestnuts will prove to be a valuable asset to any farm in the Pacific Northwest. Note our late price list for prices on grafted chestnuts.

We handle a full line of reliable nursery stock.

CARLTON NURSERY CO.,
"Since 1890."

CARLTON, OREGON.



The above photo taken in our Nurseries at Carlton, Oregon September 1st, 1923, showing a portion of a block of many thousand of our select strain Vrooman grafted Franquette Walnut trees, grafted on Northern California Black, the best growing strain of California black walnut, on 3 year old root just the right age to plant. Our scion wood is selected from some of the best bearing groves in Yamhill county, Oregon, a dependable product. Our long experience in grafting we have succeeded in producing a most perfect union, very essential to the future growth and the making of a good tree.

Plant Oregon grown Walnut trees that will grow, you are sure of your strain and good trees. Your future depends on starting right. Let us help you. Our 34 successful years in business is some guarantee as to our reliability; from our own experience and observation we take note, that southern grown Walnut trees planted in Oregon are most unsatisfactory. Plant Oregon grown trees.

To prospective planters we invite you to call and look over our trees.

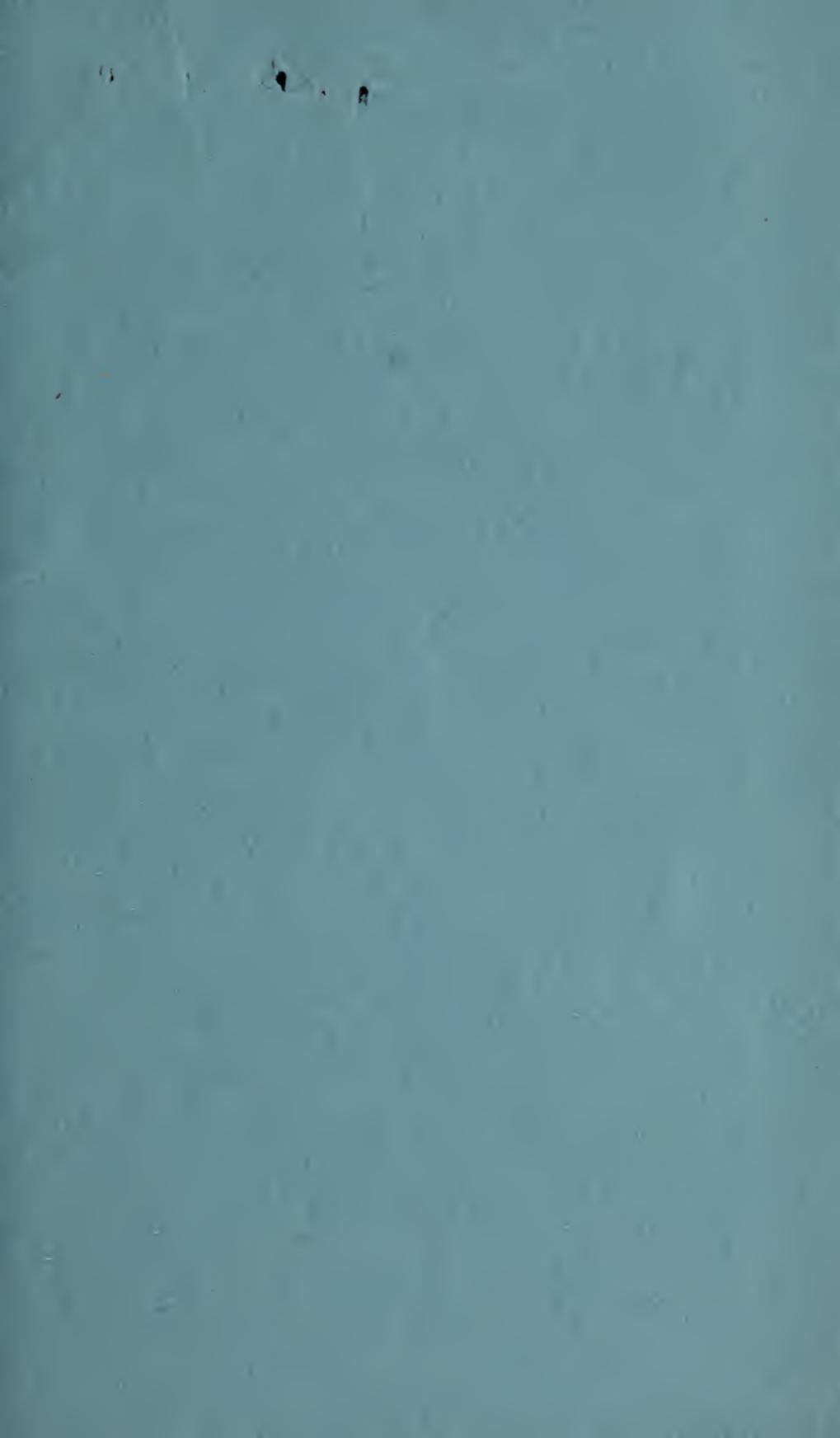
To the left and in the background you will note many thousand trees all varieties grown in our Nurseries.

We furnish large commercial plantings of all varieties; our trees are right, our prices are right. We would be pleased to sell you one tree or as many as you want. Your business will be appreciated, let us supply your needs. The strong demand for Oregon grown walnut trees means we are always sold out long before the season is over. Order early, be sure of your trees and get the best. Write for prices. We are always here.

Respectfully yours.

CARLTON NURSERY COMPANY,

CARLTON, OREGON



BUY
HARDY NORTHWESTERN
GROWN TREES

* * * *

Why Not Plant and Grow Nut
Trees? They are a Profitable
and Non-Perishable Crop.

* * * *

Our Stock Is Grown From Bud
Selected and Certified
Varieties

* * * *

No Order Too Large Or Too
Small For Us.

* * * *

CARLTON NURSERY CO.

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CARLTON, OREGON